

**CLASSIFICATION OF THE POINTED-TAILED  
WASPS, OR THE SUPERFAMILY  
PROCTOTRYPOIDEA.—III.**

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Family LVI. SCELIONIDÆ.

The position of the antennæ, which are inserted low down on the face or close to the clypeus, and the shape of the abdomen, which is always acute or margined along the sides, the tergites and sternites where they unite usually forming a fold or carina, will at once distinguish the wasps belonging to this family, from those which follow. The family comes quite close to the family Platygasteridæ, the two having been classified together as a single family by Haliday, but it may be easily separated from that family by abdominal peculiarities, by the differences in the antennæ, and by the totally different venation of the front wings.

The family Scelionidæ is one of the most extensive, being widely distributed over the entire world, with many genera and species but imperfectly studied. All of the species, without a single exception are egg-parasites of other insects, the Lepidoptera, Hemiptera, Orthoptera and Neuroptera especially being the ones most frequently attacked by them; other orders, however, are not exempted from their attacks, and one little group, the Bæinæ, destroy the eggs of various spiders (Arachnida).

TABLE OF SUBFAMILIES.

- |   |   |
|---|---|
| 1. Abdomen always with a distinct lateral carina.....   | 2 |
| Abdomen without a distinct lateral carina, although more or less acute, in shape most frequently broadly oval, rarely pointed ovate, but depressed, the second segment always the largest and longest; front wings with the post-marginal and stigmal veins long; ♀ with 11-jointed antennæ, rarely 12-jointed, clavate or subclavate; ♂ antennæ 12-jointed.....              |   |
| Subfamily I. TELENOMINÆ.  |   |
| 2. Abdomen sessile, most frequently long, fusiform or linear, extending beyond the tip of the wings when folded, rarely broadly oval, the segments more nearly equal, or the third segment is the longest, although rarely much longer than some one of the others; post-marginal vein usually present, rarely wanting, if wanting the submarginal vein ends in a stigma..... | 3 |

Abdomen broadly oval or long oval, the third segment much the longest; post-marginal vein never developed.

Marginal vein very short, punctiform or thickened, not or hardly as long as the stigmal vein; stigmal vein short, thickened at base and ending in a rounded stigma; antennæ in ♀ 7-jointed, the club being unjointed, in ♂ 12-jointed, filiform-moniliform; lateral ocelli usually close to the eye margin; females usually apterous .....Subfamily II. B.EINÆ.

Marginal vein very long, usually 5 or 6 times as long as the exceedingly short stigmal vein; stigmal vein not thickened at base; antennæ in ♀ 12-jointed, clavate, the club 5- or 6-jointed, in ♂ 12-jointed but filiform, the funicle joints long; lateral ocelli not close to the eye margin; females rarely apterous..... Subfamily III. TELEASINÆ.

3. Marginal vein seldom twice as long as the stigma vein; stigmal vein not especially short, oblique, rarely entirely absent; if the post-marginal vein is wanting, the submarginal vein ends in a stigma; antennæ in ♀ 12-jointed, clavate, in ♂ 12-jointed, usually filiform, in a single genus 10-jointed.

Subfamily IV. SCELIONINÆ.

### Subfamily I. TELENOMINÆ.

This is a most interesting group first recognized by C. G. Thomson, the eminent Swedish entomologist. Many species have been described, the majority living parasitically in the eggs of Lepidoptera and Hemiptera.

*Hemisius* Westwood, may be an older name for *Telenomus* Haliday.

*Aleria* Marshall, described in 1874, also belongs here, I think, but it is too insufficiently characterized to be incorporated in my table.

#### Table of Genera.

1. Females .....	2
Males .....	7
2. Antennæ 12-jointed.....	6
Antennæ 11-jointed, clavate.	
Lateral ocelli touching the margin of the eye.....	3
Lateral ocelli not touching the margin of the eye.....(?) <b>Hemisius</b> Westw.	
3. Mesonotum without parapsidal furrows ..	4
Mesonotum with parapsidal furrows.	
Postscutellum spined..... <b>Trimorus</b> Förster (type <i>Gryon nanus</i> WALKER).	
4. Head quadrate; abdomen pointed-ovate, the ovipositor usually exerted.	
<b>Phanurus</b> Thomson (type <i>P. augustotus</i> ).	
Head transverse, often very broad; abdomen broadly oval, usually truncate at apex..... <b>Telenomus</b> Haliday (type <i>T. brachialis</i> HALIDAY).	
5. Mesonotum with three furrows abbreviated anteriorly; frons very broad, a short but distinct groove extends from the eye back of the lateral ocellus to the occiput .....	<b>Trissolcus</b> Ashmead (type <i>T. brachymenc</i> ASHM.).
Mesonotum with two furrows abbreviated anteriorly; frons not very broad; no groove back of the lateral ocellus.....	<b>Dissolcus</b> Ashmead.
	(type <i>D. nigricornis</i> ASHM.).

6. Head transverse, convex in front, the ocelli arranged in a triangle, the lateral close to the eye margin; wings not banded; club of antennæ 4-jointed.  
**Tiphodytes** *Bradley* = **Limnodytes** *Marchal*.  
 (type *L. gerriphagus* *MARCHAL*).  
 Head large, flat, the ocelli in a triangle, the lateral nearer to the front ocellus than to the eye margin; wings banded.....**Aradophagus** *Ashmead*.  
 (type *A. fasciatus* *ASHM.*).
7. Lateral ocelli not touching the eye margin.....(?) **Hemisius** *Westw.*  
 Lateral ocelli touching the eye margin.  
 Mesonotum without parapsidal furrows..... 8  
 Mesonotum with parapsidal furrows.  
 Postscutellum spined.....**Trimorus** *Förster*.
8. Head transverse, often very broad; abdomen oblong-oval or broadly oval..... 9.  
 Head quadrate .....**Phanurus** *Thomson*
9. Pedicel clavate; first joint of the flagellum longer than the second, the latter longer than the third.....**Telenomus** *Haliday*.  
 Pedicel oblong; first joint of the flagellum the longest joint, the second shorter than the third.. .....**Tiphodytes** *Bradley* = **Limnodytes** *Marchal*.

#### Subfamily II. BÆINÆ.

This group was first recognized by the author as a tribe, but is now elevated to subfamily rank. To it belong some of the smallest Hymenoptera, the majority rarely attaining a millimeter in length, and all of them seem to be parasitic only in the eggs of various spiders (Arachnida).

##### *Table of Genera.*

1. Females ..... 2  
 Males ..... 9
2. Apterous forms..... 3  
 Winged..... 6
3. Scutellum distinct..... 4  
 Scutellum wanting.....**Bæus** *Haliday* (type *B. seminulum* *HALIDAY*).
4. Mesonotum without furrows; lateral ocelli close the eye margin.  
 Basal segment of abdomen normal, without a horn..... 5  
 Basal segment of abdomen with horn.....**Ceratobæus** *Ashmead*.  
 (type *C. cornutus* *ASHM.*).
5. First abdominal segment as broad as the metathorax and only visible as a transverse line; face with an antennal furrow, the occiput concave, the superior margin sharp; mandibles bidentate..... **Acolus** *FÖRSTER*  
 (type *A. opacus* *THOMS.*).  
 First abdominal segment subpetiolate, much narrower than the metathorax; face not or only slightly impressed, the superior margin of the occiput rounded; mandibles tridentate .....**Acoloides** *Howard* (type *A. saittidis* *HOW.*).
6. Basal segment of abdomen normal, without a horn..... 7  
 Basal segment of abdomen with a horn.  
 Mesonotum without furrows .....**Ceratobæus** *Ashmead*.

7. Mesonotum with parapsidal furrows ..... 8  
 Mesonotum without parapsidal furrows.  
     Mandibles bidentate..... **Acolus** Förster.  
     Mandibles tridentate..... **Acoloides** Howard.  
 8. First abdominal segment petioliform; eyes bare; lateral ocelli away from the eye margin ..... **Thoron** Haliday (type *T. metallicus* HAL.).  
 9. Mesonotum without parapsidal furrows..... 10  
 Mesonotum with parapsidal furrows ..... 13  
 10. Lateral ocelli close to the eye margin; antennæ filiform, moniliform or submoniliform.  
     Basal nervure present..... 11  
     Basal nervure wanting ..... 12  
 11. Head subquadrate, only slightly wider than the thorax; antennæ slightly thickened toward apex; basal abdominal segment petioliform, much narrower than the metathorax..... **Bæus** Haliday.  
     Head transverse, much wider than the thorax; eyes bare; antennæ tapering toward apex; basal abdominal segment as wide as the metathorax.  
     **Acolus** Förster.  
 12. Head transverse, scarcely wider than the thorax; eyes hairy; antennæ slightly thickened toward apex ..... **Acoloides** Howard.  
 13. Antennæ filiform, the flagellar joints about thrice as long as thick.  
     **Thoron** Haliday.

Subfamily III. TELEASINÆ.

This most interesting group is quite distinct from the others in antennal, abdominal and venational peculiarities. The antennæ are inserted rather close together on a clypeal prominence; the abdomen is always distinctly margined at the sides, narrowed towards the base, the third segment the longest; while the marginal vein is always long or greatly lengthened, the stigmal vein minute, hardly developed.

The group differs also in habits from the Telenominæ and the Bæinæ, since the species attack only the eggs of beetles, and not the eggs of Lepidoptera, Hemiptera and spiders.

Table of Genera.

1. Females ..... 2  
     Males ..... 9  
 2. Abdomen long-oval or long-ovate, the first segment petioliform, longer than wide..... 3  
     Abdomen broadly oval, the first segment wider than long..... 7  
 3. First abdominal segment without a horn..... 4  
     First abdominal segment with a horn.  
     Postscutellum with three spines ..... **Pentacantha** Ashmead.  
     (type *P. canadensis* ASHMEAD.).  
 4. Mesonotum with parapsidal furrows..... 5  
     Mesonotum without parapsidal furrows..... 6

5. Metascutellum with three spines.....**Trissacantha** *Ashmead.*  
 (type *T. americana* ASHM.).  
 Metascutellum with one spine.....**Xenomerus** *Walker.*  
 (type *X. ergonina* WALK.).
6. Postscutellum with a single large spine ; mandibles bifid, the outer tooth the larger.  
 Posterior femora, tibiæ and tarsi slender, the tibial spurs weak.  
**Prosacantha** *Nees* (type *P. longicornis* NEES).  
 Posterior femora swollen, tibiæ dilated at apex, the basal joint of tarsi short,  
 stout, the tibial spurs not weak. ....**Teleas** *Latreille.*  
 (type *T. clavicornis* LATR.).
7. Apterous forms..... 8  
 Winged.  
 Metascutellum with a spine or tuberculate.....**Hoplogryon** *Ashmead.*  
 (type *H. minutissimus* ASHM.).  
 Metascutellum simple, unarmed...**Gryon** *Haliday* (type *G. misellus* HAL.).
8. Metascutellum with a small spine or tubercle .....**Hoplogryon** *Ashmead.*  
 Metascutellum simple without a spine or tubercle .....**Gryon** *Haliday.*
9. Abdomen long-oval, the first segment petioliform ; marginal vein very long... 10  
 Abdomen broadly oval, the first segment usually wider than long..... 13
10. Mesonotum with parapsidal furrows..... 11  
 Mesonotum without parapsidal furrows..... 12
11. Postscutellum with three spines ; antennæ very long, filiform, pubescent.  
**Trissacantha** *Ashmead.*  
 Postscutellum with one spine ; antennæ with whorls of long hairs.  
**Xenomerus** *Walker.*
12. Hind femora not swollen, the tibial spurs not developed, the basal joint of tarsi  
 long, slender ; antennæ long, filiform, the flagellar joints at least four times as  
 long as thick, the third joint excised at base.....**Prosacantha** *Nees.*  
 Hind femora swollen, the tibial spurs developed, the basal joint of tarsi short,  
 stout ; antennæ filiform, the flagellar joints usually less than thrice as long as  
 thick.....**Teleas** *Latreille.*
13. Postscutellum with a small spine or tubercle ; antennæ filiform, the flagellar  
 joints elongate.....**Hoplogryon** *Ashmead.*  
 Postscutellum without a small spine or tubercle ; antennæ filiform, the joints  
 scarcely longer than thick.....**Gryon** *Haliday.*

#### Subfamily IV. SCELIONINÆ.

In having the abdomen always distinctly carinated at the sides this subfamily comes closest to the Teleasinae, but here the resemblance ceases, the abdomen, except in a few cases, being much more elongated and pointed, or fusiform, and extends beyond the tips of the wings when folded. With a little knowledge of the forms the student may at a glance recognize a species falling in this group, but when in doubt the venation may always be depended upon to distinguish the group, being quite characteristic. The postmarginal vein,

except in a few cases, is always fully developed and longer than the marginal, while the stigmal vein is never very short. The few forms without a postmarginal vein have the submarginal vein ending in a stigma (*Bæoneura* and *Seelio*).

The species falling in the groups confine their attacks principally to the eggs of orthopterous and hemipterous insects.

*Table of Genera.*

1. Females .....	2
Males .....	3
2. Postmarginal vein always greatly lengthened, the submarginal vein complete, never ending in a stigma.....	3
Postmarginal vein wanting or poorly developed, always shorter than the stigmal vein, the submarginal vein often abbreviated and ending in a large stigma ; abdomen long, fusiform .....	26
3. Basal nervure present, distinct.....	4
Basal nervure wanting.....	15
4. Basal abdominal segment without a horn .....	5
Basal abdominal segment with a horn.	
Marginal vein short ; abdomen long, pointed-fusiform, the first segment narrow, petioliform, the second and third segments nearly equal.	
<b>Caloteleia</b> <i>Westwood</i> (type <i>C.</i> ).	
Marginal vein long ; abdomen long, linear or subfusiform, the first segment quadrate or nearly .....	<b>Baryconus</b> <i>Förster</i> (type unknown).
5. Abdomen long, pointed-fusiform or linear, with segments 2, 3 and 4 nearly equal .....	6
Abdomen not so long, oblong-oval or fusiform.....	9
6. Mesonotum with parapsidal furrows.....	7
Mesonotum without parapsidal furrows.....	12
7. Metanotum with a large semicircular enclosed space at base.....	8
Metanotum without an enclosed space at base.	
Mandibles 3-dentate.....	<b>Macroteleia</b> <i>Westwood</i> . (type <i>M. cleonymoides</i> WESTW.).
Mandibles 2-dentate.....	<b>Calliscelio</b> <i>Ashmead</i> (type <i>C. laticincta</i> ASHM.).
8. Marginal vein punctiform.....	<b>Chromoteleia</b> <i>Ashmead</i> . (type <i>C. semicyanea</i> ASHM.).
9. Postscutellum spined .....	10
Postscutellum not spined, simple.....	13
10. Mesonotum with parapsidal furrows.....	11
Mesonotum without furrows.....	12
11. Mandibles 2-dentate.....	<b>Opisthacantha</b> <i>Ashmead</i> (type <i>O. mellipes</i> ASHM.).
12. Mandibles 2-dentate.	
Abdominal segments 1 and 2 of an equal length, the third long.	
? <b>Opisthacantha</b> <i>Ashmead</i> .	
Mandibles 3-dentate.	



Abdominal segments 2 and 3 of an equal length, the first short.

**Lapitha Ashmead** (type *L. spumosa* ASHM.).

12. Marginal vein short, or not more than half the length of the stigmal vein, most frequently postmarginal.  
 Mesonotum with parapsidal furrows..... 14  
 Mesonotum without parapsidal furrows.  
 Head quadrate; mandibles 3-dentate.  
**Cacellus Ashmead** = *Cacelus* Riley *proed.*  
 (type *C. crassus* ASHM.).
13. Club of antennae 5- or 6-jointed..... **Anteris Förster**  
 (type *A. ruficornis* ASHM.).  
 Club not differentiated, the flagellum filiform..... **Apegus Förster**  
 (type *A. leptaenica* FÖRSTER.).
13. Mesonotum with parapsidal furrows..... 16  
 Mesonotum without parapsidal furrows..... 21
16. Mesonotum with two furrows..... 17  
 Mesonotum with three furrows.....  
 Postscutellum toothed..... **Hoploteleia Ashmead**,  
 (type *H. flavicornis* ASHM. ♀ = *Formicus* Walker.).
17. Abdomen not very long, ovate or oblong-oval..... 20  
 Abdomen very long, fusiform.  
 Mesothorax unarmed..... 19  
 Mesothorax with two teeth..... 18
18. Mandibles 3-dentate..... **Cacellus Ashmead**.
19. Mandibles 3-dentate..... **Macroteleia Westwood**.
19. Mandibles 2-dentate..... **Caloteleia Westwood**.
20. Mandibles 2-dentate; mesothorax unarmed..... **Auteris Förster**.
21. Postscutellum simple, unarmed..... 22  
 Postscutellum armed with a spine..... **Opisthacantha Ashmead**.
22. Abdomen without a horn at base..... 23  
 Abdomen with a horn at base.  
 Marginal vein short..... **Caloteleia Westwood**.  
 Marginal vein long..... **Baryconus Förster**.
23. Abdomen broadly oval, sessile, the second segment usually a little the largest..... 23  
 Abdomen not broadly oval, long-fusiform.  
 Club of antennae 4- or 5-jointed..... 24  
 Club of antennae 6-jointed; abdominal segments normal, **Cacellus Ashmead**.
24. Club of antennae oval, 5-jointed; abdominal segments strongly constricted.  
**Cremastobaeus Ashmead** (type *C. hirsutus* ASHM.).  
 Club of antennae 4-jointed, the funiculi joints very minute, transverse, the pedicel  
 as long as the first three or four joints united; abdominal segments not con-  
 stricted, the third segment the longest..... **Embidobia Ashmead**,  
 (type *E. urichi* ASHM.).
25. Club of antennae 6-jointed..... **Hadronotus Förster** (type *H. caliceps* FÖRSTER.).
26. Submarginal vein reaching the costa often by a thickened stigma..... 27  
 Submarginal vein ending in a knob or stigma, but not reaching the costa.  
 Wings narrow, fringed; abdomen much depressed, long and pointed.  
**Bæoneura Förster** (type unknown).

27. Submarginal vein ending in a thickened stigma..... 28  
 Submarginal vein not ending in a thickened stigma.  
 Mesonotum with parapsidal furrows; marginal vein very short, the post-  
 marginal vein hardly developed or shorter than the stigma.  
     **Idris Förster** (type *I. flavicornis* FÖRSTER).
28. Head normal, without a frontal lamina or ledge; postmarginal vein not devel-  
 oped..... 29  
 Head abnormal, with a frontal lamina or ledge; scutellum quadrate, the posterior  
 angles acute; postscutellum with a large erect spine.  
     **Acanthoscelio** *Ashmead* (type *A. americanus* ASHM.).  
     Scutellum and postscutellum normal, the latter not spined.  
     **Sparasion Jurine** (type *S. frontale* LATR.).
29. Mesonotum with parapsidal furrows..... 30  
 Mesonotum without furrows or very rarely distinct.  
     Maxillary palpi short, 3-jointed, **Scelio** *Latreille* (type *S. rugulosa* LATR.).
30. Maxillary palpi short, 3-jointed..... **Scelio** *Latreille*.  
 Maxillary palpi long, 5-jointed..... **Sceliomorpha** *Ashmead*.  
     (type *S. longicornis* ASHM.).
31. Postmarginal vein always greatly lengthened, the submarginal vein complete,  
 never ending in a stigma..... 32  
 Postmarginal vein wanting or poorly developed, always shorter than the stigmal  
 vein, the submarginal vein often abbreviated and ending in a large stigma;  
 abdomen usually long..... 49
32. Basal nervure present, distinct..... 33  
 Basal nervure wanting ..... 42
33. Mesonotum with parapsidal furrows ..... 34  
 Mesonotum without furrows..... 38
34. Metathorax with a large semicircular enclosed space ..... 37  
 Metathorax without an enclosed space.  
     Postscutellum not spined..... 35  
     Postscutellum spined ..... 41
35. Marginal vein longer than the stigmal vein..... 36  
 Marginal vein punctiform or not longer than the stigmal vein.  
     Mandibles 3-dentate ..... **Caloteleia** *Westwood*.  
     Mandibles 2-dentate..... **Anteris** *Förster*.
36. Mandibles 3-dentate.  
     First joint of the flagellum scarcely longer than the third, the latter excised.  
         **Macroteleia** *Westw.*  
     First joint of the flagellum much longer than the third... **Baryconus** *Förster*.
37. Mandibles 3-dentate; marginal vein punctiform..... **Chromoteleia** *Ashmead*.
38. Postscutellum not spined ..... 39  
 Postscutellum spined ..... 44
39. Marginal vein long, always longer than the stigmal vein..... 40  
 Marginal vein punctiform, or shorter than the stigmal vein.  
     Mandibles 3-dentate.  
     First joint of the flagellum very long..... **Caloteleia** *Westwood*.  
     First joint of flagellum shorter than the second..... **Cacellus** *Ashm.*



40. Mandibles 3-dentate.....**Baryconus Förster.**
41. Marginal vein longer than the stigmal vein; mandibles 3-dentate.  
**Lapitha Ashmead.**  
 Marginal vein shorter than the stigmal vein; mandibles 2-dentate.  
**Opisthacantha Ashmead.**
42. Mesonotum with parapsidal furrows..... 43  
 Mesonotum without parapsidal furrows..... 45
43. Mesonotum with two furrows..... 44  
 Mesonotum with three furrows.  
 Postscutellum bidentate; tip of abdomen ending in two short prongs.  
**Hoploteleia Ashmead.**
44. Metathorax unarmed: mandibles 3-dentate.....**Macroteleia Westwood.**  
 Metathorax bidentate; mandibles 2-dentate.....? **Cacellus Ashm.**
45. Postscutellum simple, not spined..... 46  
 Postscutellum spined.....**Opisthacantha Ashmead.**
46. Metathorax unarmed, simple.. ..... 47  
 Metathorax with two small teeth at apex; mandibles 2-dentate.**Cacellus Ashm.**
47. Abdominal segments not strongly constricted..... 48  
 Abdominal segments strongly constricted; antennæ subclavate.  
**Cremastobæus Ashmead.**
48. Antennæ subfiliform, slightly and gradually thickened towards apex, the flagellar joints after the first not or not much longer than thick...**Hadronotus Förster.**
49. Submarginal vein usually reaching the costa, usually but not always stigmated at apex..... 50  
 Submarginal vein not reaching the costa, ending in a knob...**Bæoneura Förster.**
50. Submarginal vein ending in a stigma ..... 51  
 Submarginal vein not ending in a stigma.  
 Mesonotum with two furrows; marginal vein very short, the postmarginal vein hardly developed or shorter than the stigma.....**Idris Förster.**
51. Head without a frontal ledge or lamina..... 52  
 Head with a frontal ledge or lamina.  
 Scutellum quadrate, the hind angles acute; postscutellum spined.  
**Acanthoscelio Ashmead.**  
 Scutellum and postscutellum normal.....**Sparasion Jurine.**
52. Mesonotum without furrows or rarely distinct... ..... 53  
 Mesonotum with two furrows.  
 Antennæ 12-jointed, long; maxillary palpi long, 5-jointed.  
**Sceliomorpha Ashmead.**  
 Antennæ 10-jointed, not long; maxillary palpi short, 3-jointed.  
**Scelio Latreille.**
53. Antennæ 10-jointed; maxillary palpi short, 3-jointed.....**Scelio Latreille.**

#### Family LVII. PLATYGASTERIDÆ.

This is probably one of the largest families in the superfamily Proctotrypoidea, the most widely distributed and of great economic importance, the species all being parasitic in dipterous larvæ, belong-

ing principally to the families Cecidomyiidae and the Tipulidae. The gall-inhabiting and fungus-inhabiting species are especially subject to their attacks.

Species belonging to the genus *Amitus* Haldeman are, however, reared from species belonging to the homopterous family Aleurodidae, but since these insects also have dipterous parasites or dipterous insects associated with them, it is quite probable that the *Amiti* come from the Diptera and not from the aleurodids.

The family is quite closely allied to the Scelionidae, where Haliday placed it, but from that family it may be easily separated by the different antennæ which are never more than 10-jointed, by the 2-jointed maxillary palpi, by the 1-jointed labial palpi, and by the mandibles which are always bidentate.

TABLE OF SUBFAMILIES.

Submarginal vein in front wings clavate or ending in a stigma or knob.

Subfamily I. INOSTEMMINÆ.

Submarginal vein in front wings entirely absent or only indicated at the base, never clavate or knobbed at apex.

Subfamily II. PLATYGASTERINÆ.

Subfamily I. INOSTEMMINÆ.

*Table of Genera.*

- |  |  |
|--|--|
| 1. Females .....   | 2  |
| Males .....  | 8  |
| 2. Tarsi 5-jointed.....  | 3  |
| Tarsi 4-jointed.   |  |
| Antennæ 8-jointed, the flagellar joints nodose-pedicellate, with whorls of hairs; submarginal vein ending in a small knob. |  |
|  | <b>Iphetrachelus</b> Haliday (type <i>I. lar</i> HAL.).    |
| 3. Antennæ 10-jointed.....   | 4  |
| Antennæ 9-jointed .....  | <b>Allotropia</b> Förster (type <i>A. mecrida</i> FÖRST.). |
| 4. Front wings with a basal nervure .....  | 5  |
| Front wings without a basal nervure.....   | 6  |
| 5. Mesonotum with the furrows distinct or faint.   |  |
| Club of antennæ 3-jointed .....  | <b>Metaclisis</b> Förster.                                 |
|  | (type <i>Platygaster carcolatus</i> HAL.).                 |
| Club of antennæ 4-jointed.....   | <b>Monocrita</b> Förster (type <i>M. atinas</i> FÖRST.).   |
| 6. Lateral ocelli nearer the inner margin of the eye than to the front ocellus.....  | 7  |
| Lateral ocelli nearer the front ocellus than to the inner margin of the eye.   |  |
| Club of antennæ 4-jointed.....   | <b>Isostasius</b> Förster.                                 |
|  | (type <i>Platygaster punctiger</i> NEES).                  |
| 7. Basal segment of the abdomen with a horn that extends forwards over the thorax; mesonotum with faint furrows.....       | <b>Inostemma</b> Haliday.                                  |
|  | (type <i>Platygaster boscii</i> ).                         |

- Basal segment of the abdomen normal, without a horn; mesonotum with distinct furrows; club of antennæ 4-jointed, the funicle joints slender, cylindrical.
- Acerota Förster.**
8. Tarsi 5-jointed..... 9  
Tarsi 4-jointed.  
Antennæ 10-jointed, with whorled hairs.....**Iphetrachelus Haliday.**
9. Antennæ 10-jointed..... 10  
Antennæ 9-jointed, with whorled hairs.....**Allotropa Förster.**
10. Front wings with a basal nervure..... 11  
Front wings without a basal nervure of the submarginal vein ending in a knob. 12
11. Mesonotum with two faint furrows or with distinct furrows. Antennæ subclavate, moniliform, the first joint of the funicle very minute, the second somewhat larger, the following to the tenth large, gradually enlarged; the last the largest, conical.....**Metaclisis Förster.**  
Antennæ filiform submoniliform, the first joint of the funicle very minute, the second larger, thickened, curved, the third small, triangular, the following, except the last, transverse-moniliform, the last conical...**Monocrita Förster.**
12. Lateral ocelli nearer the inner margin of the eye than to the front ocellus..... 13  
Lateral ocelli nearer the front ocellus than to the inner margin of the eye; pedicel obconical, rather long; club of antennæ 4-jointed.....**Isostasius Förster.**
13. Mesonotum with faint furrows; antennæ moniliform, pubescent, the first two funicular joints nearly equal, the second somewhat curved, the third small, triangular, the four following moniliform, the last conical.  
**Inostemma Haliday.**  
Mesonotum with two distinct furrows; antennæ filiform, pubescent, the second funicular joint long, cylindrical, longer than the first, the third shorter than the first, the following oval, the last about thrice as long as thick.  
**Acerota Förster.**

## Subfamily II. PLATYGASTERINÆ.

To this subfamily belong all species with veinless wings, all the veins being wholly gone or obliterated, except sometimes the submarginal vein basally; if present it is, however, never knobbed, as in the *Inostemminæ*.

The genera recognized in this group are much more numerous and more difficult to separate than those in the previous subfamily, but it is believed that the characters made use of in the table below will be sufficient for their recognition.

### *Table of Genera.*

1. Females ..	2
Males.....	18
2. Scutellum lengthened, spined, or when shortened, compressed at the sides and furnished with an awl-shaped thorn, spine or tubercle.....	3
Scutellum not lengthened semicircular, either flat or convex, cushion-shaped, or cupuliform, and always unarmed.....	9

3. Scutellum ending in a strong awl-shaped spine, short thorn or tubercle..... 5  
 Scutellum lengthened, triangular, or produced into a long, acute spine.  
 Thorax not strongly compressed from the sides..... 4  
 Thorax strongly compressed from the sides.  
 Head large, rounded or quadrate..... **Piestopleura** Förster.  
 (type *Platygaster catillus* WALK.).
4. Mesonotum with deep furrows, parallel posteriorly; club of antennæ abrupt, 4-jointed ..... **Xestonotus** Förster (type *X. rufulgens* FÖRST.).  
 Mesonotum with feebly impressed furrows or the furrows absent; club of antennæ 4-jointed..... **Amblyaspis** Förster (type *A. aliena* FÖRST.).
5. Scutellum with a short thorn or tubercle at tip..... 6  
 Scutellum with a strong, awl-shaped thorn at tip.  
 Lateral ocelli nearer the inner margin of the eye than to the front ocellus; club of antennæ 4-jointed..... **Leptacis** Förster.  
 (type *Platygaster tipula* KIRBY).  
 Lateral ocelli not nearer the margin of the eye than to the front ocellus; club of antennæ 3-jointed ..... **Isorhombus** Förster (type unknown).
6. Abdomen not especially lengthened..... 7  
 Abdomen very much lengthened.  
 Club of antennæ 5-jointed; lateral ocelli as near to the front ocellus as to the eye margin..... **Polymecus** Förster.  
 (type *Platygaster creterus* WALKER).
7. Second ventral segment normal..... 8  
 Second ventral segment abnormal, strongly compressed, sack-like, the terminal segment narrowed, resembling a tail.  
 Lateral ocelli their width from the eye margin; club of antennæ 4-jointed.  
**Sactogaster** Förster.  
 (type *Epimecis ventralis* WESTW.).
8. Lateral ocelli close to the eye margin, touching or almost touching it; club of antennæ 4-jointed, the joints briefly pedicellate..... **Synopeas** Förster.  
 (type *S. melampus* FÖRST.).
9. Scutellum not cupuliform..... 10  
 Scutellum cupuliform, similar to the cynipoid genus *Eucoila*.  
 Lateral ocelli fully their width from the eye margin; mesonotum without a trace of furrows ..... **Cælopetta** Ashmead (type *C. mirabilis* ASHM.).
10. Scutellum convex or cushion-shaped..... 12  
 Scutellum flattened, or at most subconvex.  
 Mesonotum with the parapsidal furrows more or less distinct..... 11  
 Mesonotum without parapsidal furrows.  
 Antennæ 10-jointed, the club 3- or 4-jointed..... **Anopedias** Förster.  
 (type *A. obscurus* THOMS.).  
 Antennæ 8-jointed, the club 3-jointed ..... **Fidiobia** Ashmead.  
 (type *F. flavipes* ASHM.).
11. Antennæ long, 8-jointed, the club not jointed..... **Amitus** Haldeman.  
 (type *Amitus aleurodinus* HALD.).
12. Scutellum without a tuft of hairs at tip..... 13  
 Scutellum with a tuft of hairs at tip.

- Lateral ocelli not close to the eye margin ; club of antennæ 5-jointed.
- Trichacis** Förster (type *Platygaster pesis* WALKER).
13. Abdomen not much lengthened..... 14  
 Abdomen very much lengthened.  
 Club of antennæ 5-jointed ; mesonotal lines distinct.  
**Polymecus** Förster (partim).
14. Lateral margins of the abdomen normal..... 15  
 Lateral margins of the abdomen broadly deflexed.  
 Mesonotal furrows distinct.....**Hypocampsis** Förster.  
(type *H. hyalinata* THOMSON).
15. Thorax short, the scutellum pillow-shaped, separated from the mesonotum by a deep furrow.. ..... 16  
 Thorax more elongate, the scutellum not separated from the mesonotum by a deep furrow ; mesonotal furrows distinct..... 17
16. Face with a distinct keel between the antennæ.....**Eritrissomerus** Ashmead.  
(type *E. cecidomyiæ* ASHM.).  
 Face without a keel between the antennæ .....**Polygnotus** Förster.  
(type *Platygaster striolata* NEES).
17. Lateral ocelli nearer the eye margin than to the front ocellus.  
**Platygaster** Latreille (type *P. rufipes* LATR.)  
 Lateral ocelli nearer the front ocellus than to the eye margin.  
**Isocybus** Förster (type *Platygaster grandis* NEES).
18. Scutellum lengthened, never semicircular ; if shortened it is compressed at the sides and furnished with an awl-shaped thorn or tubercle.....19  
 Scutellum not lengthened, semicircular, or either flat, convex or cushion-shaped.....25
19. Scutellum lengthened, triangular, often produced into a long, acute spine.....20  
 Scutellum not lengthened, with an awl-shaped thorn, short thorn or tubercle. 22
20. Thorax not strongly compressed from the sides..... 21  
 Thorax strongly compressed from the sides.  
 Head large, rounded or quadrate.....**Piestopleura** Förster.
21. Mesonotal furrows deep, parallel posteriorly.....**Xestonotus** Förster.  
 Mesonotal furrows at most feebly impressed or wanting....**Amblyaspis** Förster.
22. Scutellum with a short thorn or tubercle at apex..... 23  
 Scutellum with a strong awl-shaped thorn at apex.  
 Lateral ocelli nearer the eye margin than to the front ocellus.  
**Laptacis** Förster.  
 Lateral ocelli nearer the front ocellus than to the eye margin or not nearer to the eye margin than to the front ocellus.....**Isorhombus** Förster.
23. Abdomen not much lengthened.....24  
 Abdomen much lengthened, longer than the head and thorax united, the second segment very large.  
 First joint of flagellum minute, rounded, the second large, dilated.  
**Polygmecus** Förster.
24. Ocelli their width from the eye margin .....**Sactogaster** Förster.  
 Ocelli close to the eye margin ..... **Synopeas** Förster.
25. Scutellum not cupuliform, convex or flattened.... 26

- Scutellum cupuliform as in the Figitid genus *Eucolia*; mesonotum without furrows.  
**Cœlopelta** *Ashmead*.
26. Scutellum convex or cushion-shaped..... 27  
 Scutellum quite flat or almost subconvex.  
 Mesonotal furrows distinct; antennæ verticellate..... **Amitus** *Haldeman*.  
 Mesonotal furrows wanting or distinct; antennæ 10-jointed, not verticellate  
 subclavate ..... **Anopedias** *Förster*.
27. Scutellum without a tuft of hairs at apex..... 28  
 Scutellum with a tuft of hairs at apex.  
 Lateral ocelli away from the left margin; club of antennæ 6-jointed, the first  
 funicle joint small, the second large, much longer than thick, the third  
 shorter; parapsidal furrows complete..... **Trichacis** *Förster*.
28. Lateral margins of abdomen normal ..... 29  
 Lateral margins of abdomen broadly deflexed.  
 Lateral ocelli nearer to the eye margin than to the front ocellus; club of  
 antennæ 4- or 5-jointed, the first joint smallest; parapsidal furrows want-  
 ing or incomplete..... **Hypocampsis** *Förster*.
29. Thorax not short, more elongate; scutellum not separated from the mesonotum  
 by a deep furrow; mesonotal furrows distinct, rarely incomplete..... 30  
 Thorax short; scutellum pillow-shaped or highly convex, separated from the  
 mesonotum by a deep furrow; mesonotal furrows variable, more rarely dis-  
 tinct or complete, sometimes wanting.  
 Face with a sharp keel between the antennæ; third joint of antennæ strongly  
 dilated ..... **Eritrissomerus** *Ashmead*.  
 Face without a sharp keel between the antennæ..... **Polygnotus** *Förster*.
30. Lateral ocelli nearer the eye margin than to the front ocellus.  
**Platygaster** *Latreille*.  
 Lateral ocelli nearer the front ocellus than to the eye margin... **Isocybus** *Förster*.

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## WINDING ELBOW-PINS.

ALEX. D. MACGILLIVRAY.

Elbow-pins are useful for mounting minute insects of many kinds, as Diptera, Hemiptera, Homoptera and Hymenoptera. They are much firmer and neater appearing mounts than those made with blotting-paper, bristol-board, cork or pith. Elbow-pins are not listed by dealers in entomological supplies, and any tools that will simplify the making of them are worthy of being noticed.

The apparatus described below was devised by Mr. J. O. Martin while a student in the entomological laboratory of Cornell University. It consists of two separate pieces, one for winding the coils 3c, and the other for placing the coils on the pins.